



RESPONSE TO THE JUNE 2007 GAO REPORT, "HURRICANE KATRINA – EPA'S
CURRENT AND FUTURE ENVIRONMENTAL EFFORTS COULD BE ENHANCED BY
ADDRESSING ISSUES AND CHALLENGES FACED ON THE GULF COAST"

Prepared by

The Louisiana Department of Environmental Quality
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In the following paragraphs, the Louisiana Department of Environmental Quality (LDEQ) will cite statements from the subject GAO report and will respond to each on a factual basis and with supporting documentation where appropriate.

CONCERNING ASBESTOS

From the report's abstract:

"However, as cleanup continues, EPA's assurance that public health is protected from risks associated with inhalation of asbestos fibers is limited because the agency has not deployed air monitors in and around New Orleans neighborhoods where demolition and renovation activities are concentrated".

"---monitors were not placed in areas undergoing substantial demolition and renovation, such as in the Ninth Ward".

"Further, many thousands of homes being demolished and renovated by or for individual homeowners are generally not subject to EPA's asbestos emissions standards aimed at limiting releases of fibers into the air".

From the body of the report (page 5):

"EPA has neither conducted emissions monitoring at demolition sites nor placed ambient air monitors in neighborhoods with substantial demolition and renovation activities".

LDEQ RESPONSE: The GAO findings that "monitors were not placed in areas undergoing substantial demolition and renovation" are incorrect. This is illustrated by the attached map, "Lower 9th Ward, Arabi Monitoring Site," showing the location of the Arabi monitoring site in relation to the demolition and renovation activity in both the Lower Ninth Ward in Orleans Parish and Arabi in St. Bernard Parish.

As prevailing winds in the New Orleans area are southerly, this monitoring site is ideally located to capture fugitive emissions of asbestos from demolitions from both of these areas. However, no asbestos has been detected at this site. Monitoring at this site began in November 2005 and is ongoing.

Following Hurricane Katrina, the EPA conducted monitoring for asbestos and other air pollutants at numerous locations in and around the greater New Orleans area, as well as in other parts of the state. Currently the monitoring effort is concentrated in the areas where there are ongoing demolitions and debris removal due to the hurricane. To date, asbestos has not been detected in any of the samples from any of these air monitoring sites.

EPA air monitoring sites (sites active as of 07/12/2007 in **bold**):

New Orleans, LA (University Of New Orleans)

New Orleans, LA (U.S. Coast Guard Reservation)

New Orleans, LA (Palmar Park at Water Treatment Facility)

New Orleans, LA (8801 Eagle Street)

New Orleans, LA (Fort Pike State Monument)

New Orleans, LA (Fire Training Academy)

New Orleans, LA (French Quarters Jackson Square)

New Orleans, LA (Corner of Florida Ave & Orleans Ave)

New Orleans, LA (Decatur & Elysian Fields)

New Orleans, LA (Venetian Isles/Chef Menteur Area)

Kenner, LA (West Temple Pl)

Marrero, LA (Patriot St. and Allo St.)

Metairie, LA (Bucktown - Coast Guard Station)

Metairie, LA (Lafreniere Park)

Arabi, LA (Arabi Site)

Waggaman, LA (Kawk Park)

St. Bernard Parish, LA (Mehle Ave., Arabi)

St. Bernard Parish, LA (2829 Numez Street)

St. Charles Parish, LA (Amelia Street at River Road)

Slidell, LA (Fritchie Park (Mcclane City))

Slidell, LA (2800 Terrace Avenue)

Hammond, LA (21549 Old Hammond Hwy, Hammond, La 70403)

Luling, LA (River Road at Sugar House Road)

Terrebonne Parish, LA (4047 Highway 24 North Gray)

St. Tammany Parish, LA (Engineer Rd & S. Range Rd)

Plaquemines Parish, LA (Main St and Teal Rd)

Iberville Parish, LA (St Gabriel Agricultural Exp. Station)

Iberville Parish, LA (65180 Belleview Road)

Lake Charles, LA (Common and East McNeese)

Vinton, LA (2284 Paul Bellow Road)

Shreveport, LA (Claiborne Street)

Shreveport, LA (3532 Fulton Street)

Shreveport, LA (Shreveport Municipal Airport)

Lafayette, LA (121 East Point Des Mouton)
Lafayette, LA (208 Devalcourt Street)
Baton Rouge, LA (1071 Leesville Ave)
East Baton Rouge Parish, LA (11245 Port Hudson-Pride Rd. Zachary, La)
East Baton Rouge Parish, LA (Highway 964)
Vidalia, LA (2005 Billy Deal Lane)
Port Allen, LA (Highway 1)
Monroe, LA (5296 Southwest)

Most significantly, the US Army Corps of Engineers, OSHA, and the EPA have taken more than 20,000 asbestos samples within, and around the perimeter of demolition sites. LDEQ inspectors have documented that perimeter monitoring for asbestos was conducted at more than 95 percent of the known Regulated Asbestos Containing Material (RACM) demolition sites (see attached chart called RACM Air Monitoring). No measurable amounts of asbestos were found in any of the samples.

In addition, LDEQ hired three licensed asbestos contractors to assess the amount of asbestos-containing materials in residences to be demolished in Orleans Parish. The contract included monitoring ambient air for asbestos. The contract work was conducted Nov. 13-17, 2005. Six samples were run for an 8-hour, time-weighted average. Three locations within the city of New Orleans were sampled. All results showed asbestos as non-detectable.

A protocol for protecting the public during a demolition where asbestos may be present has been in place for decades. The contractor performing the demolition must wet the structure before and during the demolition. The wetting process keeps asbestos fibers from becoming airborne. This requirement is well known throughout the demolition field, and state and federal employees make sure contractors know the proper protocol by delivering the information to them. Additionally, there is a team of inspectors, including some provided through EPA contracts, dedicated to oversight of demolitions to ensure proper adherence to the protocol. The contractor is subject to enforcement action for failing to follow the protocol. Making certain that asbestos fibers don't enter the atmosphere during the demolition and transport of asbestos is the best assurance that the public is not exposed. The EPA and LDEQ monitoring efforts showed that this protocol was working because no asbestos fibers have been detected at any of the numerous monitoring sites.

Homes being demolished by individual homeowners are subject to LDEQ air regulations which prohibit visible emissions during the demolition. A summary of these requirements was delivered to all known demolition contractors in the New Orleans area. Following this protocol effectively prevents release of visible emissions and any asbestos fibers which may be present into the air. Assessments are also made of these demolitions and if any areas of concern are found, the contractor is referred for enforcement action.

The U.S. Army Corps of Engineers, their contractors, and other demolition contractors continue to conduct asbestos monitoring in and around their demolition sites. Demolition contractors are subject to U.S. Occupational Safety and Health Administration requirements for worker safety,

on site, during the demolition and transport process. In addition, perimeter monitoring continues in order to ensure that the public is not exposed to asbestos due to the demolition activities.

CONCERNING COMMUNICATIONS

From the report's abstract:

“While EPA provided useful environmental health risk information to the public via flyers, public service announcements, and the EPA web page, the communications were at times unclear and inconsistent on how to mitigate exposure to some contaminants, particularly asbestos and mold”.

“Further, the usefulness of three key reports on EPA’s environmental sampling in New Orleans – developed with, among others, the LDEQ to address potential health risks and exposure to floodwaters, sediments, and air – was limited by a lack of timeliness and insufficient disclosures about EPA’s sampling program.”

LDEQ RESPONSE: LDEQ and EPA worked in a joint effort, in the same office which was manned nearly 24 hours a day, to develop protocols and get information out as quickly as possible. Information on health risks was provided through press releases, media interviews, flyers, press conferences, web sites and presentations to various groups shortly after Katrina made landfall, and before people were even allowed to return to some areas of the devastated city.

On Sept. 2, 2005, a press release was sent, along with phone calls to the media, about the sampling results of a smoke plume resulting from a fire at a warehouse in New Orleans. Press releases were sent on Sept. 9 concerning possible fish kills and effects on vegetation from Hurricane Katrina. On Sept. 9, the first household hazardous waste pickup site was announced in a press release. On Sept. 10, the first press release providing details on floodwater sampling was released. On Sept. 13 more floodwater data was released and was followed by air sampling results on Sept. 14 and sediment sampling results on Sept. 16.

Barely two weeks after the storm, before people were allowed to return to some areas, LDEQ and EPA issued several press releases and gave numerous media interviews to outlets across the United States and seven other countries on the sampling efforts and the effects of the storm to southeast Louisiana.

On Sept. 15, EPA, LDEQ and other state and federal agencies, such as the Center for Disease Control, made information available warning those who were returning to the area of the dangers of broken gas lines, mold, asbestos and household hazardous waste.

The GOA report’s assertion that information was not provided in a timely manner on subjects such as mold and asbestos is incorrect. Information for those returning to the area was provided on Sept. 16. With help from the Department of Health and Hospitals and others, brochures were posted on the LDEQ web site and a press release sent to local, state and national media

concerning mold, food and water, what people could expect, and what they should do when they return to their flooded home/area.

As the record demonstrates, information was provided to local, state and national media, posted on web sites, and flyers were distributed by EPA, LDEQ and many others to provide people with the information they needed on a variety of topics. This information was being provided even before people were allowed to return home.

CONCERNING PROVIDING SAMPLING INFORMATION IN TIMELY MANNER

In the highlights section, third paragraph under "What GAO found" "EPA's three reports on its environmental sampling in New Orleans conveyed important information on potential health risks from exposure to floodwaters, sediments and air. However, their usefulness was limited by a lack of timeliness and insufficient disclosures about EPA's environmental sampling. For example, EPA did not disclose until August 2006 that its December 2005 assessment summary - which indicated that it was generally safe for residents to return to New Orleans - applied only to short-term visits such as to view the damage to homes."

LDEQ RESPONSE: The storm hit New Orleans on Aug. 29, 2005. By Aug. 31, 80 percent of New Orleans was flooded. LDEQ and EPA emergency responders helped in the rescue of many people stranded by the rising floodwaters. However, by Sept. 2, sampling teams were busy collecting information needed to inform first responders and those who did not evacuate of the environment in which they were working.

Press releases were disseminated in a timely fashion and provided much detail to those who needed information. As would be expected, the floodwaters were tested for contamination because most of the city was flooded and the flooded area was where most first responders would be working and where people were stranded. As stated in the press releases and in information provided to local and national media outlets, people were cautioned to avoid contact with the floodwater because of bacteria.

LDEQ and EPA released their first floodwater data on Sept. 10. That press release stated that EPA and the Center for Disease Control recommended that people should avoid contact with the floodwater when possible.

On Sept. 13, the agencies released information concerning additional sampling of the floodwaters. Once again, the agencies recommended that people avoid the floodwater because of bacteria.

On Sept. 14, the first air sampling results were made public. These samples were taken from 15 sites using the EPA ASPECT plane that is capable of taking air samples and high resolution photos. These sample results showed only one area of concern and detailed that as an area that had been secured.

As the floodwaters receded, EPA and LDEQ immediately began taking sediment samples.

The first sediment sampling results were made widely available on Sept. 16, even while a large portion of the area was still inundated by floodwaters. These results stated that there were high levels of bacteria and semi-volatile chemicals such as fuel oils and diesel. The press release warned people not to come in contact with the materials and listed some symptoms of what would occur if someone did come in contact with the materials. It also gave information on what actions should be taken if someone came in contact with the material. This press release was also the first to say that overall levels of metals were below levels that would cause adverse health effects. The results were given to the media and posted on both agencies' web sites. LDEQ also made the information available by 22 zip codes, for easier reference by the public.

To emphasize the point from all the press releases, press conferences and media interviews, numerous federal and state agencies pooled their resources for an environmental assessment. On Dec. 9, 2005 a multi-state and federal agency press conference was held to announce the results of thousands of samples. Coast Guard Vice Admiral Thad Allen, head of the Hurricane Katrina relief effort, spearheaded the multi-agency project which was led by the LDEQ. The environmental summary was completed with assistance from the Centers for Disease Control, Agency for Toxic Substances and Disease Registry, Louisiana Department of Health and Hospitals, the U.S. Environmental Protection Agency, the Federal Emergency Management Agency and U.S. Occupational Safety and Health Administration.

The assessment was based on outdoor environmental conditions in Orleans, St. Bernard, Jefferson and Plaquemines parishes, which were flooded by Katrina. After analyzing more than a thousand samples, each for hundreds of contaminants, the agencies agreed that if people avoided obvious signs of hazardous materials, practiced good personal hygiene and used common sense, exposure to the environment should not cause any long-term health effects.

As the floodwater was pumped into Lake Pontchartrain, EPA and LDEQ continued to sample. The public was provided updates through press releases and other media outlets.

In summary, within 17 days of Katrina's landfall and the ensuing flood, despite staff from both agencies being engaged in rescue efforts and the obvious handicap of even getting into New Orleans and other flooded areas, LDEQ and EPA provided water, air and sediment sampling information to the media and posted the information on both agency web sites. The information provided gave detailed accounts as to what was found, how to avoid any dangerous materials and what to do if someone came in contact with the materials. The information in the press releases also described long and short-term exposure risks.

CONCERNING REMOVAL OF HAZARDOUS MATERIALS FROM NATIONAL WILDLIFE REFUGES

From the report's abstract:

"First, EPA did not remove hazardous materials from national wildlife refuges in a timely manner as part of its response in part because the disaster assistance funding generally is not used for debris cleanup on federal lands".

From the text of the report (page 6):

“EPA did not remove clearly visible abandoned chemical drums and tanks from several national wildlife refuges in Louisiana as part of its Katrina response activities, in part because FEMA disaster assistance funding generally is not used for debris cleanups on federal land.”

LDEQ RESPONSE: To be factually correct, the GAO statements should read “the Department of the Interior (DOI) did not remove...” as the EPA was not responsible for debris cleanups on federal lands. According to FEMA, federal agencies are responsible for their own property and FEMA did not approve the funding request by DOI for the removal of the debris containing hazardous materials.

Although not responsible for debris cleanup on federal lands, the Unified Incident Management Team (EPA, LDEQ, U.S. Coast Guard, and other federal and state agencies as well as representatives from local governments) assisted the DOI and U.S. Fish and Wildlife Service with hazardous debris removal from the refuges once funding was obtained via a supplemental appropriations bill.

CONCERNING EPA’S ROLE IN EMERGENCY DEBRIS DISPOSAL DECISIONS

From the report’s abstract:

“Second, because states generally have authority over landfill decisions, EPA does not have an effective role in emergency debris disposal decisions that could cause pollution”.

From the body of the report (page 7):

“Along these lines, in its emergency orders following Hurricane Katrina, the state of Louisiana made decisions about landfill sites and the disposal of debris that some studies indicate could have long-term, negative environmental impacts”.

LDEQ RESPONSE: Louisiana’s Emergency Debris Management Plan was developed in accordance with the applicable state and federal regulations with great emphasis on the protection of public health and the environment. Recycling and the reuse of resources associated with hurricane generated debris was the preferred option while landfilling ranked at the bottom of debris management option hierarchy. The emergency debris management sites, which included landfills, chipping and grinding wood waste sites and staging areas, were selected based on a set of criteria encompassing state and EPA regulations and FEMA technical requirements. Although EPA does not have a formal role in development of this plan, the agency provided technical assistance to LDEQ on issues relating to several landfills. EPA has been an outstanding partner by providing personnel, resources and technical assistance. In fact, in March of 2007, EPA held a Waste Management Operation in Natural Disasters workshop in Baton Rouge, attracting stakeholders from local, state, and federal agencies. The purpose of this workshop was to discuss lessons learned and to prepare for future disasters

LDEQ, through its emergency authority, expanded the definition of construction and demolition debris from its more stringent state definition to the federal definition which includes items such as furniture and carpet. Other household items, including white goods and household hazardous wastes, were segregated either at the curbside or removed by spotters observing waste disposal at landfills accepting hurricane generated debris. This decision was based on the fact that the risk to human health created by debris removal slowed by efforts to segregate the carpet and furniture was by far greater than any environmental risk that these materials placed in a C&D landfill could pose.

The best measure of the success of the debris management plan is the amount of unacceptable waste which was kept out of C&D landfills. As of July 1, 2007, more than 5.4 million containers, drums, and tanks containing more than 23.4 million pounds of hazardous and industrial waste have been recovered. The majority of this waste stream has been recycled and the remainder has been disposed of properly.

CONCERNING DISPOSAL OF APPLIANCES AND ELECTRONIC WASTES

From the report's abstract:

“Finally, lack of clarity in federal debris management plans and protocols precluded the timely and safe disposal of some appliances and electronic waste”.

LDEQ RESPONSE: First of all, appliances and electronics were not destined for disposal under the debris management plan. In Louisiana, white goods ("white goods" refers to inoperative and discarded refrigerators, ranges, water heaters, freezers, microwave ovens, and other similar domestic and commercial large appliances) may only be sent to a collection or recycling facility. The FEMA-adopted Debris Management Plan made it clear that diversion and recycling were priorities and that proper recycling and processing of household hazards wastes, propane tanks, abandoned vehicles and vessels, white goods and electronics was required.

The Debris Management Plan also directed that at C&D sites and transfer and screening sites, “arrangements should be made to screen out unsuitable materials, such as household garbage, white goods, asbestos containing materials (ACM's), and household hazardous waste.” Diversion, recycling, composting and recycling debris are priorities of the Debris Management Plan. Debris handlers are instructed to make every effort to properly handle and recover materials which have reuse value, are recyclable or whose release into the environment would be detrimental or is prohibited, e.g. used motor oil.

An example of the successful recovery campaign is illustrated by the recovery and recycling of more than 1.3 million electronic goods and more than 1.2 million white goods.

CONCERNING SUPERFUND SITES

From the body of the report (page 33):

“Such contamination was a particular concern in New Orleans, a densely populated, older urban area in proximity to petroleum and chemical industry sites, as well as a number of Superfund sites, from which contaminants may have migrated into residential areas”.

LDEQ RESPONSE: Following the passage of Hurricane Katrina there was immediate concern over the potential for the release of toxic or hazardous substances into the environment. The initial environmental threats assessments were performed by way of air reconnaissance over flooded areas that were otherwise inaccessible. Railcars and Tier 2 facilities in the impacted area were prioritized based upon the potential toxicity and volume of material on site. Tier 2 facilities are facilities covered by the Emergency Planning and Community Right to Know Act. EPCRA requires facilities storing any substance for which a material safety data sheet is required by the Occupational Safety and Health Act and in quantities exceeding the Threshold Planning Quantity (specified for Extremely Hazardous Substance or 10,000 pounds for everything else) to report them to the state, local emergency planning committees and fire departments.

More than 950 inspections were performed in the weeks following Hurricane Katrina in Jefferson, Orleans, Plaquemines, St. Bernard and St. Tammany parishes. These inspections were conducted to determine the extent of flood and wind damage and to locate any immediate environmental hazards. These included 170 inspections of Tier 2 facilities, 558 inspections of underground storage tank locations and 222 inspections of current and past remediation sites.

Special attention was paid to Superfund sites in the impacted area. LDEQ inspected and sampled at Delatte Metals, Madisonville Wood Preserving, Bayou Bonfouca, Southern Ship Building and the Agricultural Street Landfill. In addition, EPA inspected and, where warranted, obtained sediment/soil samples at Superfund sites within the impacted area. This data indicates that there have been no releases and that there are no adverse health impacts that could affect residents returning to this area or to their homes.

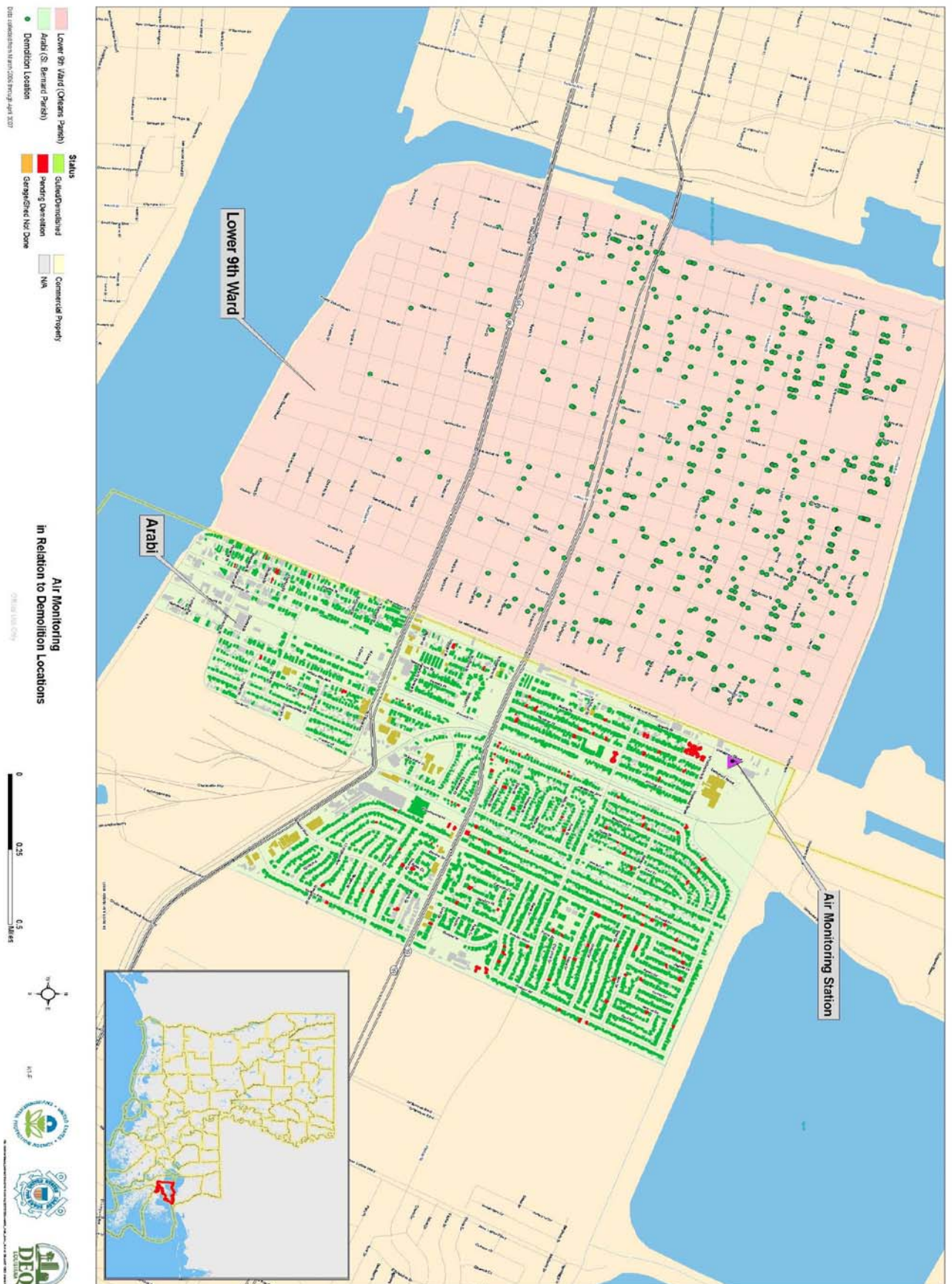
CONCERNING THE UNIFIED COMMAND CENTER AND INCIDENT MANAGEMENT TEAM

LDEQ general comment: The GAO researchers seem to have been oblivious to one of the real success stories for the responses to environmental challenges brought by Hurricanes Katrina and Rita. This was the formation and operation of the Unified Command Centers (UCC) and Incident Management Teams set up in each of the hurricane impacted areas. Immediately following Hurricane Katrina, a Unified Command Center was opened in the LDEQ headquarters building.

Representatives from a number of federal and state agencies and local governments with environmental responsibilities broadly collaborated in a unified effort to provide efficient and effective responses to the environmental emergencies. The following organizations were represented at the UCC established for Hurricane Katrina: EPA, US Coast Guard,

Corps of Engineers, Louisiana Oil Spill Coordinator's Office, Louisiana State Police, Louisiana Department of Health and Hospitals, the Arkansas Department of Environmental Quality and the Texas Commission on Environmental Quality.

An important point that the GAO seems to have missed is that operational decisions and communications concerning emergency responses, environmental monitoring, environmental and public health risk assessments, debris management and cleanup and recovery operations were usually developed as a consensus among the environmental scientists, engineers, and public health professionals working from the UCC.



Percentage of RACM Demolitions with Perimeter Air Monitoring : 95.2% - March 27, 2006 to July 7, 2007

Total RACM Demolitions: 3819

Total RACM Demolitions with Perimeter Air Monitoring: 3634

